1 What is the differential rate law of the reaction
3 A + 4 B --> 2 D?

A rate = k [A]3 [B]4
B rate = k [A] [B]
C rate = 12 k [A] [B]
D More information needed

2 For 2 NO + O2 --> 2 NO2 what is order of NO?

[NO]	[O2]	rate
0.0001	0.0001	0.0000028
0.0001	0.0003	0.0000084
0.0002	0.0003	0.000035

A 1
B 2
C Neither of the above

3 For 2 NO + O2 --> 2 NO2 what is order of O2?

[NO]	[O2]	rate
0.0001	0.0001	0.0000028
0.0001	0.0003	0.0000084
0.0002	0.0003	0.000035

A 1
B 2
C Neither of the above

4 For 2 NO + O2 --> 2 NO2 what is the form of the differential rate law?

A rate = k [NO] [O2]
B rate = 2k [NO] [O2]
C rate = k [NO]2 [O2]
D None of the above?

5 For 2 NO + O2 --> 2 NO2 what is the form of d[NO]/dt?

A d[NO]/dt = - k [NO] [O2]
B d[NO]/dt = - 2k [NO] [O2]
C d[NO]/dt = - k [NO]2 [O2]
D d[NO]/dt = - 2k [NO]2 [O2]

6 For A + 2 B --> 3 C what is order of A?

[A]	[B]	rate
1	1	4
4	1	2
4	2	16

A 1
B 2
C Neither of the above

7 For A + 2 B --> 3 C what is order of B?

[A]	[B]	rate
1	1	4
4	1	2
4	2	16

A 1
B 2
C Neither of the above

8 For A + 2 B --> 3 C what is the form of the differential rate law?

A rate = k [A] [B]
B rate = (3/2) k [A] [B]
C rate = k [A]-1/2 [B]3
D rate = - k [A]-1/2 [B]3
E None of the above

9 For A + 2 B --> 3 C what is the form of d[A]/dt?

A d[A]/dt = k [A]-1/2 [B]3
B d[A]/dt = - k [A]-1/2 [B]3
C d[A]/dt = (1/2) k [A]-1/2 [B]3
D d[A]/dt = - (1/2) k [A]-1/2 [B]3
E None of the above

10 For A + 2 B --> 3 C what is the form of d[B]/dt?

A d[B]/dt = k [A]-1/2 [B]3
B d[B]/dt = - k [A]-1/2 [B]3
C d[B]/dt = 3 k [A]-1/2 [B]3
D d[B]/dt = - 3 k [A]-1/2 [B]3
E None of the above

11 For A + 2 B --> 3 C the rate of the reaction is k [A]-1/2 [B]3 . The value of the rate constant is ...

A k = 3/2 M-3/2/s
B k = - 3/2 M3/2/s
C k = 4 M-3/2/s
D k = - 4 M3/2/s
E None of the above

12 For A + 2 B --> 3 C the rate of the reaction is
4 M-3/2/s [A]-1/2 [B]3 . When [A] = 9 M and [B] = 2 M, d[C]/dt is ...

A 72 M/s
B - 36 M/s
C 32 M/s
D None of the above

13 What is the differential rate law of the reaction
2 NO2 + F2 --> 2 NO2F?

A rate = k [NO2] [F2]
B rate = k [NO2]2 [F2]
C Neither of the above

14 What is the differential rate law of the reaction
2 NO + O2 --> 2 NO2?

A rate = k [NO] [O2]
B rate = k [NO]2 [O2]
C Neither of the above

15 What is the differential rate law of the I- catalyzed reaction
2 H2O2 --> O2 + 2 H2O
in basic solution?

A rate = k [H2O2]
B rate = k [H2O2]2
C Neither of the above